Abstract


It has become more common to conduct product development work in temporary organisations such as projects, since they are said to increase motivation, flexibility, efficiency and effectiveness. Concurrent engineering (CE) projects are considered particularly efficient and effective. In CE, the use of cross-functional teams and professional project leaders is crucial, and the project life cycle is shortened considerably. Previous research has primarily shed light on the technological, economical and organisational aspects of CE-projects, whereas the psychological aspects have received less attention. The aim of this thesis was to:

- analyse what characterises the work dynamics in project teams during the project life cycle when cross-functionality and time focus are stressed,
- find indications of whether co-operation in CE-projects works out better or worse than in working groups in general,
- analyse what characterises leadership in CE-projects and whether it differs from leadership in general.

The thesis is based on qualitative and quantitative empirical data collected in two longitudinal research projects. Seven product development projects were studied during a period of four years. The main results indicate that the:

- collaboration worked out well in the majority of the projects and the project as an organisational form was perceived mainly positively. The hard time focus was, however, perceived negatively.
- cross-functional teams were characterised by a more positive work climate than working groups in general.
- intervention of the steering groups (micromanagement) in the creative work of teams was perceived negatively by the teams, as was the authoritarian leadership style in the case where it appeared. Project leaders who had a good ability to handle relations as well as structures were appreciated.

The main conclusions are: 1) Many of the companies had disregarded important aspects of concurrent engineering, such as creating a proper and transparent project organisation. 2) The problems involved in integrating the members of the cross-functional teams were underestimated. 3) Long-term exposure to stress and the unilateral striving for increased efficiency created cynicism, stagnation and sub-optimisation among team members. 4) The demands on the project leaders can be so extensive that a single person cannot fulfil the role. Formalised project leader trios (teams consisting of three managers) where the burden is shared could diminish the projects’ vulnerability. 5) Improved efficiency and dynamics in the teams are based on psychological consciousness of how people act and react in project teams. 6) Interactive planning, which means that the steering group, the project leaders and the teams meet continuously, could generate a broader understanding and a more holistic view of the product development project. 7) Experiences generated in single projects could be diffused to other projects in the mother organisation, through the use of “reflection banks”, that are forums for de-briefing, documentation and the diffusion of ideas and experiences.

Key words: Project psychology, projects, teams, project leader, stress, product development.

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